

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A suture anchor, comprising;
a bone engaging section formed along a bone engaging axis;
a bone engaging structure formed along said bone engaging section and defining a maximum diameter of the suture anchor;
a suture engaging section extending from said bone engaging section and defining to a terminal proximal end of the suture anchor and wherein an outermost annular surface of the suture engaging section defines a diameter less than or equal to said maximum diameter, such that said suture engaging section is able to be substantially disposed below an exterior surface of a boney structure after implantation;
an enclosed eyelet formed in said suture engaging section to allow a selected portion of a suture to pass through and extend from said suture engaging section generally along said bone engaging axis; and
a suture passage defined by said suture engaging section operable to allow a suture to enter and exit the suture engaging section from a single section such that the selected portion of the suture remains substantially within said maximum diameter.

2. (Original) The suture anchor of claim 1, wherein said bone engaging section and said suture engaging section are substantially integrally formed as a single unit.

3. (Original) The suture anchor of claim 2, wherein the material of said single unit is selected from a group including stainless steel, cobalt chromium alloys, bio-absorbable polymers, and combinations thereof.

4. (Original) The suture anchor of claim 1, wherein said bone engaging structure includes a thread formed along said bone engaging section, wherein a maximum diameter of said thread defines said maximum diameter of the suture anchor.

5. (Original) The suture anchor of claim 4, wherein said thread is formed only on said bone engaging section.

6. (Currently Amended) The suture anchor of claim 1, wherein:
~~said suture engaging section is able to be substantially disposed below an exterior surface of a boney structure after implantation;~~
said eyelet is substantially exposed and accessible after implantation of the suture anchor.

7. (Previously Presented) The suture anchor of claim 1, wherein said eyelet includes at least a first eyelet and a second eyelet wherein said suture passage interconnects said first eyelet and said second eyelet such that a suture may be passed through said first eyelet through said passage and through said second eyelet and be held substantially within said suture engaging section.

8. (Original) The suture anchor of claim 7, wherein said suture passage allows a suture to be passed to an exterior of said suture engaging section at a point other than said first eyelet and said second eyelet.

9. (Original) The suture anchor of claim 1, wherein a suture passed through said suture passage is passed substantially only through said suture engaging section.

10. – 18. (Canceled)

19. (Currently Amended) A suture anchor to provide a fixation of a suture in a selected anatomical portion, comprising:

an anatomical engaging section having an anatomical engaging portion;
and

a suture engaging section extending from said anatomical engaging section to a terminal proximal end of the suture anchor, the suture engaging section defining a radially outermost surface that is configured to be substantially disposed below an exterior surface of the selected anatomical portion after implantation;

wherein said suture engaging section defines a first suture eyelet and a second suture eyelet in a single wall of the suture engaging section;

wherein the first suture eyelet and the second suture eyelet are each operable to maintain the suture within a perimeter of the suture engaging section;

wherein said suture engaging section defines a suture holding passage interconnecting said first suture eyelet and said second suture eyelet to substantially hold a suture relative to said anatomical engaging section;

wherein said suture engaging section is adapted to be positioned generally within a bore defined in said selected anatomical portion.

20. (Original) The suture anchor of claim 19, wherein said anatomical engaging section and said suture engaging section are generally formed as a single piece of a single material.

21. (Canceled).

22. (Original) The suture anchor of claim 19, wherein said suture holding passage includes a first passage section and a second passage section formed at an angle relative to each other to have an exterior angle of at least 90°.

23. (Currently Amended) The suture anchor of claim 19, wherein a suture is positionable through said first suture eyelet, said suture holding passage, and said second suture eyelet such that said suture is generally able to ~~at least~~ extend from ~~one of~~ said suture engaging section generally parallel and along an axis of said anatomical engaging section.

24. (Original) The suture anchor of claim 19, wherein said anatomical engaging section and said suture engaging section are adapted to be substantially received within the selected anatomical portion such that said suture engaging section is generally co-extensive with an exterior portion of said selected anatomical portion.

25. – 38. (Canceled).

39. (Previously Presented) The suture anchor of claim 1, wherein the suture engaging section is spaced a distance axially from the bone engaging section.

40. (Previously Presented) The suture anchor of claim 1, wherein the suture engaging section is positioned substantially within a boundary defined by the bone engaging section.

41. (Canceled).

42. (Previously Presented) The suture anchor of claim 1, wherein said suture engaging section defines a second axis; and

wherein a suture is operable to extend from the eyelet substantially parallel with at least one of the bone engaging axis, the second axis, or both the bone engaging axis and the second axis.

43. (Previously Presented) The suture anchor of Claim 1, wherein at least a portion of said suture passage defines an enclosed bore extending substantially parallel to said bone engaging axis.

44. (Previously Presented) The suture anchor of Claim 19, wherein said suture holding passage includes an enclosed passage defined in the suture engaging section; wherein the suture is operable to be held completely within said suture engaging section via said suture holding passage.

45. (Previously Presented) The suture anchor of Claim 19, wherein said first suture eyelet and said second suture eyelet are both formed through one surface of said suture engaging section.

46. (Previously Presented) The suture anchor of Claim 43, wherein said eyelet includes a first eyelet and a second eyelet both formed as a completely surrounded bore in a proximal face of said suture engaging section and said suture passage interconnects said first eyelet and said second eyelet.

47. (Currently Amended) A suture anchor system, comprising;

a bone engaging portion formed along a bone engaging axis;

a bone engaging structure formed along said bone engaging portion and defining a maximum diameter;

a suture engaging portion extending from said bone engaging portion to an end surface of the suture anchor, said suture engaging portion defining a diameter less than or equal to said maximum diameter and ~~having an end surface~~ along the length of the suture engaging portion;

at least two eyelets formed in said end surface of said suture engaging portion to completely surround a suture and to allow a selected portion of the suture to pass through and extend from said suture engaging portion generally along said bone engaging axis; and

a suture passage defined by said suture engaging portion interconnecting the at least two eyelets.

48. (Previously Presented) The suture anchor system of claim 47, wherein said bone engaging portion and said suture engaging portion are integrally formed as a single member.

49. (Previously Presented) The suture anchor system of claim 47, wherein said end surface is formed at an end of the suture engaging portion configured to extend away from said bone engaging portion.

50. (Previously Presented) The suture anchor system of claim 47, further comprising:

an access to a first portion of said suture passage extending through a side wall of said suture engaging portion configured to allow access to said suture passage through the side wall.

51. (Previously Presented) The suture anchor system of Claim 47, wherein the suture passage is configured to allow a suture to pass one of the at least two eyelets, be positioned in the suture passage and pass a second of the at least two eyelets.

52. (Previously Presented) The suture anchor of claim 1, wherein the suture engaging section includes a surface aligned with the bone engaging axis and a top surface formed to intersect the bone engaging axis;

wherein the enclosed eyelet is formed in the top wall and the suture passage is defined within the suture engaging section.

53. (Previously Presented) The suture anchor of claim 19, wherein the anatomical engaging section defines an axis and the single wall is formed to intersect the axis;

wherein the eyelet is formed in the single wall and the suture passage is defined within the suture engaging section.

54. (Previously Presented) The suture anchor of Claim 1, wherein said enclosed eyelet is defined by a bore in an end surface of said suture engaging section, wherein the bore has a sidewall enclosing a complete perimeter of the bore.

55. (Previously Presented) The suture anchor of Claim 54, wherein the bore is substantially cylindrical.

56. (Previously Presented) The suture anchor of Claim 54, wherein the suture engaging section includes a surface; and

an access opening through the surface of the suture engaging section to allow access to the suture passage from an exterior of the suture engaging section through the access opening.

57. (Previously Presented) The suture anchor of Claim 52, wherein said enclosed eyelet is defined by a bore in the top surface of said suture engaging section, wherein the bore has a sidewall enclosing a complete perimeter of the bore.

58. (Currently Amended) The suture anchor of Claim 19, wherein the first suture eyelet and the second suture eyelet are each defined by a bore in an end surface of said suture engaging section, wherein the bore has a sidewall enclosing a complete perimeter of the bore.

59. (Previously Presented) The suture anchor of Claim 45, wherein the first suture eyelet and the second suture eyelet are each defined by a bore in the one end surface of said suture engaging section, wherein the bore has a sidewall enclosing a complete perimeter of the bore;

wherein the suture holding passage extends through the suture engaging section to interconnect the first suture eyelet and the second suture eyelet so that a suture is operable to pass through the first suture eyelet, the suture holding passage, and the second suture eyelet.

60. (Previously Presented) The suture anchor system of claim 47, wherein each of the at least two eyelets is defined by a bore in the end surface of said suture engaging portion, wherein the bore has a sidewall enclosing a complete perimeter of the bore.

61. (Previously Presented) The suture anchor system of claim 60, wherein the suture engaging portion includes a first surface formed substantially transverse to the bone engaging axis;

wherein said at least two eyelets are both defined by said first surface.

62. (Canceled).

63. (Canceled).

64. (New) The suture anchor of claim 1 wherein said eyelet comprises first, second, third and fourth eyelets and said suture passage comprises first and second suture passages, wherein said first eyelet is connected through said first suture passage to said second eyelet; and said third eyelet is connected through said second passage to said fourth eyelet.